AMENDMENTS TO THE CLAIMS

1. (currently amended) A method comprising:

determining that fibrillation is occurring in a heart of a person; and

defibrillating the heart without applying shock pulses by:

applying electrical pulses to the heart at a rate greater than about 10 Hz, with a peak power that is less than about 100 W, wherein applying the pulses comprises applying a pulse having an amplitude less than 30 mA, and

terminating the electrical pulses, whereby the steps of applying and terminating the electrical pulses effectuate defibrillation of the heart.

2. (original) A method according to claim 1, wherein applying the pulses comprises applying the pulses for at least about 100 milliseconds.

3. (original) A method according to claim 1, wherein applying the pulses comprises applying to the heart a total amount of electrical energy which is less than about 1 joule.

4. (canceled)

5. (previously presented) A method according to claim 1, further comprising sensing motion of the heart, wherein applying the pulses comprises modifying a characteristic of at least some of the pulses applied to the heart responsive to the sensed motion.

6. (currently amended) A method according to claim 1, further comprising ~~applying a fencing signal to the heart to inhibit~~ inhibiting propagation of an activation wave ~~therein~~ in the heart while applying the electrical pulses, by applying a fencing signal to the heart.

7. (original) A method according to claim 1, wherein applying the pulses comprises applying the pulses in two or more bursts of pulses.

8. (previously presented) A method according to claim 1, further comprising pacing the heart at approximately 1 Hz while applying the electrical pulses at the rate greater than about 10 Hz.

9. (canceled)

10. (previously presented) A method according to claim 1, wherein the peak power is less than about 10 W, and wherein applying the pulses comprises applying the pulses with the peak power that is less than about 10 W.

11. (previously presented) A method according to claim 1, wherein applying the pulses comprises applying respective signals at a plurality of sites on the heart.

12. (original) A method according to claim 11, wherein applying the signals comprises applying a first waveform at a first one of the sites and applying a second waveform, which differs from the first waveform, at a second one of the sites.

13. (currently amended) A method according to claim 1, wherein applying the pulses comprises ~~applying the pulses so as to induce~~ inducing depolarization in at least a region of the heart by applying the pulses.

14. (currently amended) A method according to claim 13, wherein applying the pulses comprises ~~applying the pulses so as to induce~~ inducing a depolarization of substantially all excitable contractile tissue of the heart by applying the pulses.

15. (currently amended) A method according to claim 13, wherein applying the pulses comprises ~~applying the pulses so as to induce~~ inducing substantially sustained contraction of the region lasting at least about 250 milliseconds by applying the pulses.

16-29. (canceled)

30. (currently amended) A method comprising:

determining that ventricular fibrillation is occurring in a heart of a person; and

defibrillating the heart without applying shock pulses by:

applying an electrical signal to the heart with a total energy of no more than about 1 joule, and

terminating the electrical signal, whereby the steps of applying and terminating the electrical signal effectuate defibrillation of the heart.

31. (canceled)

32. (previously presented) A method according to claim 30, further comprising sensing motion of the heart, wherein applying the signal comprises modifying a characteristic of the signal responsive to the sensed motion.

33. (currently amended) A method according to claim 30, further comprising ~~applying a fencing signal to the heart to inhibit~~ inhibiting propagation of an activation wave therein while applying the electrical signal by applying a fencing signal to the heart.

34. (original) A method according to claim 30, wherein applying the signal comprises applying the signal in two or more bursts of signal application.

35. (previously presented) A method according to claim 30, further comprising pacing the heart at approximately 1 Hz while applying the electrical signal.

36. (previously presented) A method according to claim 30, wherein applying the signal comprises applying electrical energy to the heart at a peak rate which is less than about 100 W.

37. (original) A method according to claim 36, wherein applying the signal comprises applying electrical energy to the heart at a peak rate which is less than about 10 W.

38. (previously presented) A method according to claim 30, wherein applying the signal comprises applying respective signals at a plurality of sites on the heart.

39. (original) A method according to claim 38, wherein applying the signals comprises applying a first waveform at a first one of the sites and applying a second waveform, which differs from the first waveform, at a second one of the sites.

40. (currently amended) A method according to claim 30, wherein applying the signal comprises ~~applying the signal so as to induce~~ inducing depolarization in at least a region of the heart by applying the signal.

41. (currently amended) A method according to claim 40, wherein applying the signal comprises ~~applying the signal so as to induce~~ inducing a depolarization of substantially all excitable contractile tissue of the heart by applying the signal.

42. (currently amended) A method according to claim 40, wherein applying the signal comprises ~~applying the signal so as to induce~~ inducing substantially sustained contraction of the region lasting at least about 250 milliseconds by applying the signal.

43. (previously presented) A method according to claim 30, wherein applying the electrical signal comprises modifying a parameter of the signal during the application thereof.

44. (previously presented) A method according to claim 30, wherein applying the signal comprises applying to the heart electrical pulses at a first frequency, and wherein terminating the electrical signal comprises reducing the frequency to a second frequency.

45. (currently amended) Apparatus for defibrillating a heart of a person, comprising:
one or more electrodes, adapted to be coupled to the heart; and
a control unit, adapted to defibrillate the heart without applying shock pulses by:

driving the electrodes to apply electrical pulses to the heart at a rate greater than about 10 Hz, with a peak power that is less than about 100 W, wherein the control unit is adapted to drive at least one of the electrodes to apply a pulse having an amplitude less than 30 mA, and terminating the electrical pulses, whereby the applying and terminating of the electrical pulses effectuates defibrillation of the heart.

46. (original) Apparatus according to claim 45, wherein the control unit is adapted to drive the electrodes to apply the pulses for at least about 100 milliseconds.

47. (original) Apparatus according to claim 45, wherein the control unit is adapted to drive the electrodes to apply to the heart a total amount of electrical energy which is less than about 1 joule.

48. (canceled)

49. (previously presented) Apparatus according to claim 45, further comprising a sensor, adapted to sense motion of the heart and to convey a sensor signal responsive thereto to the control unit, wherein the control unit is adapted to modify a characteristic of at least some of the pulses applied to the heart responsive to the sensor signal.

50. (currently amended) Apparatus according to claim 45, further comprising a fencing electrode, adapted to be coupled to the heart, wherein the control unit is adapted to drive the fencing electrode ~~to apply a fencing signal to the heart~~ to inhibit propagation of an activation wave ~~therein~~ in the heart, by applying a fencing signal to the heart, while concurrently driving the one or more electrodes to apply the electrical pulses.

51. (original) Apparatus according to claim 45, wherein the control unit is adapted to drive the electrodes to apply the pulses in two or more bursts of pulses.

52. (previously presented) Apparatus according to claim 45, further comprising a pacing electrode, adapted to be coupled to the heart, wherein the control unit is adapted to drive the pacing electrode to pace the heart at approximately 1 Hz, while concurrently driving the one or more electrodes to apply the electrical pulses.

53. (original) Apparatus according to claim 45, wherein the one or more electrodes comprise first and second electrodes, and wherein the control unit is adapted to drive the first electrode to apply a first waveform at a first site of the heart, and is adapted to drive the second electrode to apply a second waveform, which differs from the first waveform, at a second site of the heart.

54. (canceled)

55. (previously presented) Apparatus according to claim 45, wherein the peak power is less than about 10 W, and wherein the control unit is adapted to drive the electrodes to apply the pulses with the peak power that is less than about 10 W.

56. (currently amended) Apparatus according to claim 45, wherein the control unit is adapted to drive the electrodes ~~to apply the pulses so as~~ to induce depolarization in at least a region of the heart, by applying the pulses.

57. (currently amended) Apparatus according to claim 56, wherein the control unit is adapted to drive the electrodes ~~to apply the pulses so as~~ to induce depolarization of substantially all excitable contractile tissue of the heart, by applying the pulses.

58. (currently amended) Apparatus according to claim 56, wherein the control unit is adapted to drive the electrodes ~~to apply the pulses so as~~ to induce substantially sustained contraction of the region lasting at least about 250 milliseconds, by applying the pulses.

59-71. (canceled)

72. (currently amended) Apparatus for defibrillating a heart of a person, comprising:

one or more electrodes, adapted to be coupled to the heart; and

a control unit, adapted to defibrillate the heart when it is in ventricular fibrillation by:

driving the electrodes to apply an electrical signal to the heart with a total energy of no more than about 1 joule, and

terminating the electrical signal, whereby the steps of applying and terminating the electrical signal effectuate defibrillation of the heart.

73. (original) Apparatus according to claim 72, wherein the control unit is adapted to drive at least one of the electrodes to apply a signal having an amplitude less than about 50 mA.

74. (previously presented) Apparatus according to claim 72, further comprising a sensor, adapted to sense motion of the heart and to convey a sensor signal responsive thereto to the control unit, wherein the control unit is adapted to modify a characteristic of the electrical signal applied to the heart responsive to the sensor signal.

75. (currently amended) Apparatus according to claim 72, further comprising a fencing electrode, adapted to be coupled to the heart, wherein the control unit is adapted to drive the fencing electrode ~~to apply a fencing signal to the heart~~ to inhibit propagation of an activation wave ~~therein~~ in the heart, by applying a fencing signal to the heart, while concurrently driving the one or more electrodes to apply the electrical signal.

76. (original) Apparatus according to claim 72, wherein the control unit is adapted to drive the electrodes to apply the signal in two or more bursts of signal application.

77. (previously presented) Apparatus according to claim 72, further comprising a pacing electrode, adapted to be coupled to the heart, wherein the control unit is adapted to drive the pacing electrode to pace the heart at approximately 1 Hz, while concurrently driving the one or more electrodes to apply the electrical signal.

78. (original) Apparatus according to claim 72, wherein the one or more electrodes comprise first and second electrodes, and wherein the control unit is adapted to drive the first electrode to apply a first waveform at a first site of the heart, and is adapted to drive the second electrode to apply a second waveform, which differs from the first waveform, at a second site of the heart.

79. (previously presented) Apparatus according to claim 72, wherein the control unit is adapted to drive the electrodes to apply the signal such that a peak transfer rate of electrical energy to the heart is less than about 100 W.

80. (original) Apparatus according to claim 79, wherein the control unit is adapted to drive the electrodes to apply the signal such that a peak transfer rate of electrical energy to the heart is less than about 10 W.

81. (currently amended) Apparatus according to claim 72, wherein the control unit is adapted to drive the electrodes ~~to apply the signal so as~~ to induce depolarization in at least a region of the heart, by applying the signal.

82. (currently amended) Apparatus according to claim 81, wherein the control unit is adapted to drive the electrodes ~~to apply the signal so as~~ to induce depolarization of substantially all excitable contractile tissue of the heart, by applying the signal.

83. (currently amended) Apparatus according to claim 81, wherein the control unit is adapted to drive the electrodes ~~to apply the signal so as~~ to induce substantially sustained contraction of the region lasting at least about 250 milliseconds, by applying the signal.

84. (previously presented) Apparatus according to claim 72, wherein the control unit is adapted to modify a parameter of the electrical signal during the application thereof.

85. (original) Apparatus according to claim 84, wherein the control unit is adapted to reduce a frequency of the signal from a first value to a second value during application of the signal to the heart.